

M1114 / Golden HMMWV Power

Electrical systems used in theater

Common Remotely Operated
Weapons Station (CROWS)



Improved Target
Acquisition Sight
(ITAS) TOW



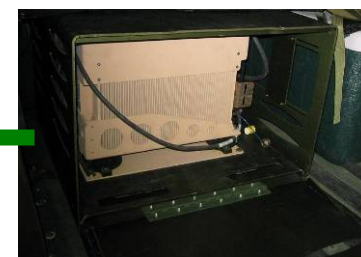
SINCGARS
& VIC-3



Battery
Powered
Motorized
Turret Unit
(BPMTU)



DAGR/PLGR
GPS Systems



CREW 2 (DUKE)

Other Possible Equipment:

Anti-IED Systems
MTS
FH MUX
Micro Climate cooling vest
Harris Radio
CHAMELEON
Duke 2 plus

Drivers Vision
Enhancement
(DVE)



Blue Force Tracker
(FBCB2)



Long Range Acoustic Device™
(LRAD®)



Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 20 JAN 2007		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE M1114 Golden HMMWV Power				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Aboona, Jonathan				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USA ARMY TARDEC 6501 E 11 Mile Road Warren, MI 48397-5000				8. PERFORMING ORGANIZATION REPORT NUMBER 16947 RC	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S) TACOM TARDEC	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) 16947 RC	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT SAR	18. NUMBER OF PAGES 3	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

M1114 / Golden HMMWV Power

Power draw on 200A HMMWV Alternator

The Golden HMMWV (M1114) has a 200A alternator which can provide between 110 - 180 Amps of usable power. At engine idle, its output is 40A.

Item	Steady State (A)	Surge (A)
Engine, drivetrain & accessories	5	30
A/C on High (Low Steady State = 16A)	23	40
Dual Long Range SINCGARS	2.25	18.5
Blue Force Tracker	0.015	2.5
DAGR	0.25	1.5
EPLRS	2.5	35
DUKE	13	30
AFES (Surge at discharge only)	0.1	25
VIS (Surge for 15ms on cueing)	2	20
DVE (estimate)	2	4
BPMTU (see smart-charging note*)	0.24	60
VIC-3	1.35	15
Total in Amps:	51.705	281.5

Future and Optional Power Draws

CROWS	16	32
Anti-IED System 1	40	45
Anti-IED System 2	60	190
Anti-IED System 3	<1	<2
PLGR	0.075	0.125
MTS	1.7	3.5
FH MUX	3.57	3.57
Micro Climate cooling vest (estimate)	1	3
ITAS TOW	38	45
Harris Radio	<20	20
CHAMELEON	12	60
Duke 2 plus (estimate)	20	40

NOTE: All Future and Optional Power Draws would NOT be installed concurrently, due to various purposes and physical constraints.

*NOTE: BPMTU smart-charging: 12-60A while charging turret batteries; only during low alternator loads; 0.050-0.240A with charged turret batteries

M1114 / Golden HMMWV Power

Acronyms

AFES – Automatic Fire Extinguishing System
BPMTU – Battery Powered Motorized Turret Unit
CHAMELEON – Modular Communication Suite
CROWS – Common Remotely Operated Weapons Station
DAGR – Defense Advanced GPS Receiver
DUKE – Jammer formerly CREW
DVE – Driver Vision Enhancement (System)
EPLARS – Enhanced Position Location And Reporting System
ITAS – Improved Target Acquisition System
TOW - Tube-launched, Optically tracked, Wire-guided
FH MUX – Frequency Hopping Multiplexer (Location Reporting)
MTS – Movement Tracking System
PLGR – Precision Lightweight GPS Receiver
VIS – Vehicle Intercommunication System